DESALINATION TASK FORCE

Summary of Key Issues

Environmental issues and concerns are imbedded throughout the range of issues identified, representing an overarching topic of interest. Long-term water supply reliability also represents a primary topic of interest. Many issues will require clear delineations between ocean, estuarine and brackish applications. Desalination of irrigation water will be addressed but to a limited extent given budgetary and time constraints.

A. General Approach

- Should there be overarching management objectives?
- Should costs be reduced before expanding desalination?
- Should environmental benefits of desalination be demonstrable?
- Should there be more public education and awareness of desalination before proceeding?
- Is there a need for additional research before proceeding?
- What role, if any, should the State play in furthering the use of desalination?

B. Permitting and Regulatory Issues

- Information needed for regulatory review
- Efficient review process
- Water rights issues, particularly in estuaries
- General vs. individual permits
- Bay and ocean water designated as a drinking water supply
- Public/private ownership and operation, including privatization of water supplies
- Range of local and state responsibilities
- Implications of international trade issues
- Knowledge gained from previous desalination permitting experiences
- Science-based approach to improve predictability of outcomes
- Differences of being linked with power plants versus wastewater treatment plans

C. Energy Issues

- Factors contributing to energy costs

- Potential energy sources, current and future
- Energy use comparisons between desalination and alternatives
- Pros and cons of co-locating with energy and other facilities
- Methods or approaches to reducing energy costs
- Environmental impacts of energy production
- Constraints to use of existing transmission corridors
- State role in furthering "green" energy markets

D. Economic Issues

- Realistic assessment of economic costs
- Direct and indirect costs of desalination versus other water management strategies
- Framework for benefit/cost analyses, including projected long term economic trends, benefits other than water supply, etc.
- Alternative methods for lowering costs
- Appropriate incentives, including support for environmental benefits
- Strategies for creating financial efficiencies
- Holistic approach to analysis of water supplies, including conservation, recycling, etc.
- Assuring good investments and avoiding bad investments
- Impacts on and opportunities for low-income communities
- Impacts on State revenues

E. Planning Issues

- Growth inducement
- Links between planning and water supply demand
- Environmental and water quality benefits from brackish water treatment
- Regional water projections/plans for long-term facility development
- Capability to operate and maintain facilities for the long-term
- Water supply diversification to assure water reliability
- Small versus large scale approach
- Multi-jurisdictional cooperation

F. Siting Issues

- Land use and infrastructure compatibility
- Public access
- Environmental justice
- Visual impacts of facilities
- Impacts on recreation and tourism
- Modular or floating units
- Density of facilities and potential cumulative impacts
- Guidelines and criteria, including acceptable distances from the shoreline for ocean facilities
- Impacts on wetlands and terrestrial habitats
- Impacts of intake and discharge locations
- Impacts on saltwater intrusion

G. Feedwater Intake

- Options for feedwater
- Source water quality, pretreatment and their impacts
- Entrainment and impingement impacts
- Affected organisms, and how they are affected
- Ecological impacts
- Existing and needed mitigation measures

H. Distribution and Outfall Issues

- Stability and impact on distribution systems
- Disposal of residual materials from desalination processes
- Optimal marine/estuarine substrates for outfall locations
- Approaches to managing brine, addressing dispersion, co-locating with other discharges, brine line length, etc.
- Waste stream characterization
- Water quality, including impacts of blending with power plant, sewage or other discharges
- Ecological impacts of brine disposal

I. Public Health

- Consumption of product water
- Air quality